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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,728	10/20/2005	Shigehiko Ohta	075536-010100	9151

33717 7590 04/17/2008  
GREENBERG TRAURIG LLP (LA)  
2450 COLORADO AVENUE, SUITE 400E  
INTELLECTUAL PROPERTY DEPARTMENT  
SANTA MONICA, CA 90404

EXAMINER
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OLSEN, LIN B

ART UNIT	PAPER NUMBER
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3661

MAIL DATE	DELIVERY MODE
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04/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/527,728	<b>Applicant(s)</b> OHTA ET AL.	
	<b>Examiner</b> LIN B. OLSEN	<b>Art Unit</b> 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/26/2006, 2/12/2008</u> .                                    | 6) <input type="checkbox"/> Other: _____                          |

***Priority***

Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in Japan under PCT on September 10, 2003. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date.

***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on January 26, 2006 and February 12, 2008 were filed before the mailing date of the first action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 1** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites in line 5 that “an upper base plate joined to a foot joint” but does not provide particulars of such joining – at an edge, on the broad surface of the plate, centered, etc.

The claim further recites in line 7 that “a lower plate positioned below the upper base plate, and being opposite to the upper base plate” but does not provide particulars of such positioning.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claim 2** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim recites at least three high damping members are arranged at equal intervals between the upper base plate and the lower base plate, however the specification limits the number of damping members to the number of elastic members and the placement of the damping members to adjacent to the elastic members.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,455,497 to Hirose et al. (Hirose) in view of Japanese Application 02302899 to Bando Chemical (Bando) as interpreted in Patent Abstract. Hirose is concerned with means to control a legged mobile robot and Bando is concerned with an anisotropic elastic material.

Regarding independent **claim 1**, “An impact absorbing mechanism for a walking robot, the impact absorbing mechanism provided to a foot of an extremity of each of a plurality of movable legs of the walking robot having the movable legs, comprising:

an upper base plate joined to a foot joint of each of the movable legs;” - Hirose describes a biped walking robot and means to absorb the impact of walking. While Hirose discusses absorption in the hip joint and knee joint, in figures 23-35 he discusses a ninth embodiment - absorption in the foot (col. 13 line 66 to col. 14 line 47). As shown in Fig. 24, a structure like the upper plate is the piston member item number 824.

“a lower base plate positioned below the upper base plate, and being opposite to the upper base plate; and” – Hirose shows in Fig. 24, a foot plate 800 which has a part opposite member 824.

“at least three elastic members anisotropic in terms of elasticity, which are arranged at equal intervals in a circumferential direction about a predetermined axis line extending in a direction perpendicular to the upper base plate, between the upper base plate and the lower base plate,” – Hirose shows in Fig. 25 four elastic members 828 arranged at equal intervals about the Z axis perpendicular to the upper and lower members 800/824.” At col. 14, line 10, Hirose discloses that the elastic members are hard rubber bushings, not anisotropic elastic members. However, Bando discloses an anisotropic elastic material that has different properties in at least one direction. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the hard rubber bushings with bushings made of the Band material to yield the predictable result of better control of the torques produced by walking.

“each of which allows the lower base plate to make elastic displacement relative to the upper base plate in the same direction as the predetermined axis direction extends, while each of which inhibits the lower base plate from making elastic displacement relative to the upper base plate in directions orthogonal to the predetermined axis direction, and” – The bushings of the Hirose/Bando combination would allow the elastic displacement preferentially in the Z direction.

“which join the upper base plate and the lower base plate elastically.” – As shown in Hirose Fig. 24, the bushings 828 are use to join elements 800 and 824 together.

Claim 2 is rejected for as depending on a rejected independent claim as well as for the 35 U.S.C. § 112 issues.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Pub. No. 2005/0120820 to Takenaka et al.; U.S. Patent Pub. No. 2006/0060394 to Hayakawa et al.; U.S. Patent Pub. No. 2006/0249314 to Takenaka et al. and Noriyuki Kanechira, et al. *Design and Experiments of Advanced Leg Module(HRP-2L) for Humanoid Robot(HRP-2) Development, Proceedings of IEEE/RS-J Int. Conference on Intelligent Robots and Systems*, October 2002.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LIN B. OLSEN whose telephone number is (571)272-9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. B. O./  
Examiner, Art Unit 3661

/Thomas G. Black/  
Supervisory Patent Examiner, Art Unit 3661